

**REMARKS**

Applicants submit this Reply in response to the non-final Office Action mailed February 2, 2011. Claims 1-20 are pending in this application, of which claims 1-13 have been withdrawn from consideration. Thus, claims 14-20 are submitted for examination, of which claim 14 is the sole independent claim. By this Reply, Applicants have amended independent claim 14. No new matter has been added.

In the Office Action, the Examiner rejected claim 14 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,619,804 (“Davis”); rejected claims 14 and 16-20 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,233,024 (“Hiller”) in view of Davis;<sup>1</sup> and rejected claim 15 under 35 U.S.C. § 103(a) as being unpatentable over Hiller in view of Davis, and further in view of U.S. Patent No. 6,719,430 (“Cotton”).

Applicants respectfully traverse all pending rejections for at least the reasons discussed below.

**Rejection Under 35 U.S.C. § 102(b)**

In the Office Action, the Examiner rejected claim 14 under 35 U.S.C. § 102(b) as being anticipated by Davis. In order to properly establish that Davis anticipates Applicants’ claimed invention under 35 U.S.C. § 102, every element of the claims in issue must be found, either expressly or described under principles of inherency, in that single reference. Furthermore, “[t]he identical invention must be shown in as complete

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<sup>1</sup> In the Office Action, the Examiner states, “Claims 14, and 16-20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Hiller . . . in view of Davis . . . , and further in view of Cotton . . . .” Office Action at 4 (emphasis added). However, the Examiner does not rely on Cotton in the § 103(a) rejections of claims 14 and 16-20.

detail as is contained in the . . . claim." See M.P.E.P. § 2131, quoting *Richardson v. Suzuki Motor Co.*, 868 F.2d 1126, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989).

Davis fails to disclose every element of Applicants' claims. Amended independent claim 14 recites, in part:

a projection optical system . . . compris[ing]:

a first optical system; and

a second optical system,

wherein the first optical system forms an intermediate image of the primary image surface independently from the second optical system, the intermediate image being formed between the first optical system and the second optical system,

wherein the second optical system comprises a concave reflector that forms a secondary image independently from the first optical system, the secondary image corresponding to the secondary image surface according to the intermediate image . . .

In the Office Action, the Examiner asserts, "[A]s interpreted from Figure 3 in Davis, the first optical system can include lens set 34a, concave mirror 34b, and lens set 34c, which forms an intermediate image at the intermediate image plane, while the second optical system also includes concave mirror 34b and the components of Projection Lens 37, which are used to form a secondary image on a screen (the secondary image surface)." Office Action at 2 (emphasis added). The Examiner further asserts, "It is important to point out here that one of ordinary skill in the art recognizes that each of the first and second optical systems above are defined by the collection of optical elements used in a particular configuration, and would include sharing certain elements between them such as a common mirror in order to provide a folded light path." Id. Moreover, in an Advisory Action dated January 19, 2010, the Examiner stated, "[T]he limitations of claim 14, as broadly interpreted . . . require only

that the first optical system and the second optical system form an intermediate image of a surface, which is taught as illumination path 15a and image path 15b in Davis," and further that "[t]he claim 14 limitations do not state that each optical system must form images independently, nor where the images are to be located in the optical paths of these optical systems." Advisory Action at 3 (emphasis added).

Applicants respectfully disagree with the Examiner's characterization of independent claim 14. However, in order to expedite prosecution of this application, Applicants have amended independent claim 14 to recite, in part, "the first optical system forms an intermediate image of the primary image surface independently from the second optical system, the intermediate image being formed between the first optical system and the second optical system [and] wherein the second optical system comprises a concave reflector that forms a secondary image independently from the first optical system, the secondary image corresponding to the secondary image surface according to the intermediate image . . . ." Davis nowhere discloses such features.

Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw the rejection of amended independent claim 14 under 35 U.S.C. § 102(b) based on Davis.

**Rejections Under 35 U.S.C. § 103(a)**

Applying 35 U.S.C. § 103(a), the Examiner rejected claims 14-20 as set forth above. However, a *prima facie* case of obviousness, the requirements of which are discussed below, has not been established for each rejected claim for at least the following reasons.

To establish a *prima facie* case of obviousness, the prior art reference (or references when combined) must disclose all of the claim limitations, or the claim rejection must explain why the differences between the prior art and the claim limitations would have been obvious to one of ordinary skill in the art. See M.P.E.P. § 2141.

A *prima facie* case of obviousness has not been established because, among other things, Hiller, Davis, and Cotton, alone or in combination, fail to teach or render obvious every element of Applicants' claims. Specifically, no reference cited by the Examiner teaches or renders obvious at least, "the first optical system forms an intermediate image of the primary image surface independently from the second optical system, the intermediate image being formed between the first optical system and the second optical system [and] wherein the second optical system comprises a concave reflector that forms a secondary image independently from the first optical system, the secondary image corresponding to the secondary image surface according to the intermediate image," as recited in amended independent claim 14.

In the Office Action, the Examiner concedes, "Hiller fails to teach a projection optical system [comprising] a first optical system that forms an intermediate image of the primary image surface; and a second optical system having a concave reflector that forms a secondary image corresponding to the secondary image surface according to the intermediate image . . ." Office Action at 5. In an attempt to cure this admitted deficiency, the Examiner cites Davis. However, as discussed above with respect to the Examiner's § 102(b) rejection, Davis fails to teach or render obvious at least, "the first optical system forms an intermediate image of the primary image surface independently from the second optical system, the intermediate image being formed between the first

optical system and the second optical system [and] wherein the second optical system comprises a concave reflector that forms a secondary image independently from the first optical system, the secondary image corresponding to the secondary image surface according to the intermediate image.”

Further, the Examiner’s additional citation of Cotton fails to cure the deficiencies of Hiller and Davis, as Cotton similarly fails to teach or render obvious at least, “the first optical system forms an intermediate image of the primary image surface independently from the second optical system, the intermediate image being formed between the first optical system and the second optical system [and] wherein the second optical system comprises a concave reflector that forms a secondary image independently from the first optical system, the secondary image corresponding to the secondary image surface according to the intermediate image.”

Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw the rejection of amended independent claim 14 under 35 U.S.C. § 103(a) based on Hiller, Davis, and Cotton.

Moreover, claims 15-20 depend from amended independent claim 14, and thus, these rejected dependent claims are patentably distinguishable from Hiller, Davis, and Cotton for at least the same reasons as independent claim 14.

#### Claim Scope

It is to be understood that Applicants are in no way intending to limit the scope of the claims to any exemplary embodiments described in the specification or abstract and/or shown in the drawings. Rather, Applicants believe that they are entitled to have

the claims interpreted broadly, to the maximum extent permitted by statute, regulation, and applicable case law.

**CONCLUSION**

In view of the foregoing, Applicants respectfully request reconsideration and reexamination of this application, and the timely allowance of the pending claims.

If the Examiner believes that a telephone conversation might advance prosecution of this application, the Examiner is cordially invited to call Applicants' undersigned attorney at (404) 653-6435.

Applicants respectfully note that the Office Action contains a number of assertions concerning the related art and the claims. Regardless of whether those assertions are addressed specifically herein, Applicants respectfully decline to automatically subscribe to them.

Please grant any extensions of time required to enter this response and charge any additional required fees to Deposit Account 06-0916.

Respectfully submitted,

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